

In the claims:

Please substitute the following full listing of claims for the claims as originally filed or most recently amended.

1. (Currently Amended) A method of protecting a material surface comprising steps of
depositing a material layer on said material surface, said material layer providing ~~an interface selected from the group consisting of~~ a chemical reaction interface at a surface of said material layer, ~~a grain interface and a material interface~~,
lithographically patterning said material layer,
and
removing said material layer from said material surface selectively to said material surface.
2. (Original) A method as recited in claim 1, wherein said material layer provides a chemical reaction interface and is formed of a low density and high permeability material relative to other semiconductor materials and wherein said depositing step includes
converting said material layer using a plasma containing hydrogen and oxygen or water vapor.
3. (Original) A method as recited in claim 2, wherein said removing step includes
etching said material layer with a mixture of hydrogen fluoride and a hygroscopic material at a chemical reaction interface.
4. (Original) A method as recited in claim 3, wherein said low density and high permeability material is a tunable etch-resistant anti-reflective coating (TERA) material.

5. (Original) A method as recited in claim 3, wherein said hygroscopic material is an organic solvent or an inorganic acid.

6. (Original) A method as recited in claim 5, wherein said organic solvent is ethylene glycol.

7. (Original) A method as recited in claim 5, wherein said inorganic acid is sulfuric acid.

8. (Withdrawn - Currently Amended) A method as recited in claim 1, wherein said depositing step includes

depositing a first layer of polysilicon material, exposing said first layer of polysilicon material to an ambient gas to form a said grain interface, and depositing a second layer of polysilicon material.

9. (Withdrawn) A method as recited in claim 8, wherein said ambient gas includes oxygen.

10. (Withdrawn) A method as recited in claim 9, wherein said first and second layers of polysilicon material have a total thickness of less than 40 nm.

11. (Withdrawn) A method as recited in claim 1, wherein said depositing step includes

depositing a layer of polysilicon, and depositing a layer of metal in said layer of polysilicon to form a said material interface.

12. (Withdrawn - Currently Amended) A method as recited in claim ~~10~~ 11, wherein said metal is tungsten.

13. (Withdrawn) A method as recited in claim 11, including the further step of

forming a silicide from said layer of metal and said layer of polysilicon.

14. (Withdrawn) A method as recited in claim 11, including the further step of patterning said layers of metal and polysilicon to form integrated circuit element structures.

15. (Currently Amended) A mask structure for semiconductor device manufacture comprising

~~a layer of material providing an interface selected from the group consisting of a chemical reaction interface at a surface of said layer of material, a grain interface and a material interface,~~

~~wherein said chemical reaction interface provides at least one of increased resistance to semiconductor manufacturing processes and enhanced selectivity of an etching process for removal of said layer of material.~~

16. (Original) A mask structure as recited in claim 15, wherein said layer of material has OH⁻ groups or water incorporated therein.

17. (Previously Presented) A mask structure as recited in claim 16, wherein said layer of material is a tunable, etch-resistant anti-reflective coating material.

18. (Withdrawn) A mask structure as recited in claim 16, wherein said layer of material comprises two layers of polysilicon having a grain interface therebetween such that grain boundaries in each layer are interrupted by said grain interface.

19. (Withdrawn) A mask structure as recited in claim 18, wherein said grain interface is formed of an oxide.

20. (Withdrawn) A mask structure as recited in claim 15, wherein said layer of material comprises a layer of polysilicon and a layer of metal.

21. (Withdrawn) A mask structure as recited in claim 20 wherein said metal is tungsten.

22. (Withdrawn) A mask structure as recited in claim 20, wherein said layer of material is patterned to form a conductive structure in said semiconductor device.

23. (Withdrawn) A mask structure as recited in claim 22, wherein said conductive structure is a transistor gate.

24. (Currently Amended) A mask structure as recited in claim 15, wherein said layer of material includes ~~materials selected from the group consisting of hydrated or oxidized~~ tunable etch-resistant anti-reflective coating (TERA) material~~[],~~ ~~or graded~~ TERA material ~~and polysilicon or nitride, a metal and polysilicon, oxidized polysilicon, nitridized polysilicon and silicided metal.~~